

WebSphere CloudBurst Appliance
Second Edition

Installation Guide

IBM

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Second Edition

Installation Guide

IBM

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 29.

Second Edition (October 2010)

This edition applies to IBM WebSphere CloudBurst Appliance 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 přečtěte 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.
- Ensure that the reflective surface of a dental mirror cannot contact a live electrical circuit. The surface is conductive and can cause personal injury or equipment damage if it comes in contact with 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. Ensure that you can quickly turn off the power 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 working on the equipment, disconnect the power cord. If you cannot disconnect the power cord, 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.
- Do not service components (such as power supplies, pumps, blowers, fans, and motor generators) outside of their normal operating locations. This precaution helps to ensure proper grounding of components.
- 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, determine the seriousness of the hazard. Determine 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® CloudBurst 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 the safety notices for IBM Systems.

You can access the *IBM Systems Safety Notices* document on the *IBM WebSphere CloudBurst Appliance: 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.

(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 workspaces. 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. It could also place hazardous voltage on the devices that attach to the system. 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 could exceed the ambient temperature recommended by the manufacturer. Ensure that this temperature is not exceeded 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.**
- **Plan 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. Use the information provided on the labels 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 out of the rack might cause the rack to become unstable. Attempting to move the drawer might also 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 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 CloudBurst Appliance is a specialized hardware appliance that uses server virtualization, virtual appliances, and application infrastructure virtualization. It delivers automation and optimization across the life cycle of your environments, for example, WebSphere Application Server environments. WebSphere CloudBurst manages people (the users of the system), places (the servers, network and storage to run WebSphere applications), and things (virtual images, patterns, and virtual machines).

Audience for 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 CloudBurst appliance appliance
- Installing a WebSphere CloudBurst appliance appliance in the rack
- Performing the base, initial configuration of a WebSphere CloudBurst appliance appliance

How this document is organized

This document has the following organization:

- Safety
Provides safety information for the WebSphere CloudBurst appliance appliance.
- Chapter 1, "Overview"
Provides the features and specifications for the WebSphere CloudBurst appliance appliance.
- Chapter 2, "Planning"
Provides information about the rack, required tools, and the installation overview.
- Chapter 3, "Installing and configuring the WebSphere CloudBurst appliance"
Provides instructions for installing the rails and the appliance in the rack and connecting to the power supply and network.
- Chapter 4, "Initializing and configuring WebSphere CloudBurst"
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 CloudBurst Appliance: Information Center* is referenced by this document, but it is not on the *IBM WebSphere CloudBurst Appliance: Documentation CD*. You can find the *IBM WebSphere CloudBurst Appliance: Information Center* at the following location:

<http://publib.boulder.ibm.com/infocenter/wscloudb/v2r0/index.jsp>

The Documentation CD

The *IBM WebSphere CloudBurst Appliance: Documentation CD* contains documentation for your WebSphere CloudBurst 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 CloudBurst Appliance: 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 CloudBurst appliance 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. You can perform any of the following actions on the list:

- Click a document to view it.
- Press **Ctrl + F** to use the Acrobat search function.
- Press **Ctrl + Alt** to use the XPDF search function within the document.

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

Available documents

The *IBM WebSphere CloudBurst Appliance: Documentation* CD contains the following documents:

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

Warranty information

The product-specific *IBM Statement of Limited Warranty* for this product is provided on the *IBM WebSphere CloudBurst Appliance: 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 CloudBurst Appliance: 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 hazardous to you. A danger statement is placed just before the description of a potentially lethal or 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. Overview

IBM WebSphere CloudBurst Appliance is an appliance that is packaged with software to manage resources in a cloud computing environment. WebSphere CloudBurst uses server virtualization and virtual appliances to deliver automation and optimization across the life cycle of your environments, for example IBM WebSphere Application Server environments.

The WebSphere CloudBurst appliance is a 1U rack-mountable appliance that can be placed in a data center. The appliance can dispense topologies, for example IBM WebSphere Application Server Hypervisor Edition topologies, into a pool, or cloud of virtualized hardware, and manage resources. The cloud and resources are running on IBM PowerVM™, IBM z/VM®, or VMware hypervisors.

WebSphere CloudBurst manages the people, places, and things in your cloud computing environment. *Cloud computing* is a computing paradigm in which data and services are located in data centers. The data and services can then be accessed from any connected devices over the Internet. Applications can use the cloud for added value, such as storage, queuing, and hosted applications. The applications themselves can also be hosted on the cloud.

WebSphere CloudBurst manages the following resources:

People

The users of the system.

Places The servers, network, and storage to run applications.

Things

Virtual images, patterns, and virtual machines.

Using WebSphere CloudBurst, you can access the resources in your cloud and centrally manage multiple environments from a single appliance and remote interface. More information about the people, places and things that WebSphere CloudBurst manages is available in the WebSphere CloudBurst information center at the following location: <http://publib.boulder.ibm.com/infocenter/wscloudb/v2r0/index.jsp>.

To begin using WebSphere CloudBurst, you must first install the hardware and initialize the appliance. More information about these procedures is available in “Planning for installation” on page 9 and “Planning for configuration” on page 10.

Appliance overview

IBM WebSphere CloudBurst Appliance is a hardware and software solution. The WebSphere CloudBurst appliance consists of data storage, a system battery, fan modules, and power modules.

Specifications

Table 1 on page 2 summarizes the specifications for the dimensions of the WebSphere CloudBurst appliance chassis.

Table 1. Appliance dimensions

Specification	Measurement
Height	1.7 inches (4.32 cm)
Width	19 inches (48.25 cm) 19.13 inches (48.59 cm) with rails
Depth	28.12 inches (71.42 cm) 33.05 inches (83.94 cm) with rails
Weight	Maximum: 37.48 lb. (17 kg)

Table 2 summarizes the electrical requirements for the WebSphere CloudBurst™ appliance.

Table 2. Electrical specifications

Specification	Measurement
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

Table 3 summarizes the environmental requirements for the WebSphere CloudBurst appliance.

Table 3. Environment requirements

Specification	Requirement
Air temperature	Turned on: <ul style="list-style-type: none"> • Altitude 0 feet to 3000 feet (914.4 m) 50° to 95° F (10° to 35° C) • Altitude: 3000 feet (914.4 m) to 7000 feet (2133.6 m) 50° to 89.6° F (10° to 32° C) Maximum altitude: 7000 feet (2133.6 m) 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 =50 dB to L _A =64 dB Rear: L _A =51 dB to L _A =66 dB The lower limits indicate the fans during typical operating conditions. The upper limits indicate the fans during startup or high temperature situations.
Power level acoustics	65 dB to 79 dB, Declared

Features

The WebSphere CloudBurst appliance provides the hard disk array for data storage. The hard disk array is a simple swap Serial Attached SCSI (SAS) hard disk drive. The specifications are shown in Table 4.

Table 4. Serial Attached SCSI (SAS) hard disk drive specifications

Feature	Value
Capacity	146 GB
Speed	10 K revolutions per minute (RPM)

Table 4. Serial Attached SCSI (SAS) hard disk drive specifications (continued)

Feature	Value
Interface	SAS
Cache	16 MB
RAID	1
Configuration	RAID 1, mirrored
Output	25 watts per drive

Front view

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

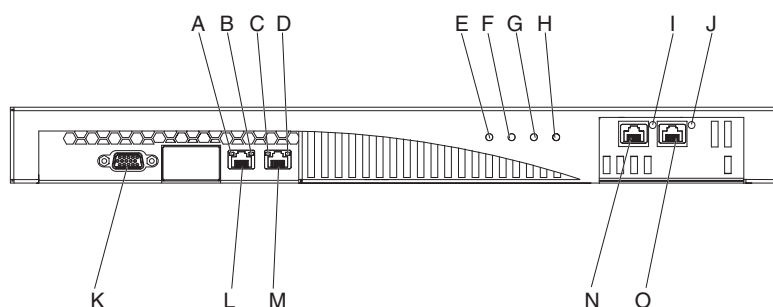


Figure 1. Front view

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

- A The *activity* LED light for the MGMT Ethernet interface.
- B The *speed* LED light for the MGMT Ethernet interface.
- C The *activity* LED light for the ETH0 Ethernet interface.
- D The *speed* LED light for the ETH0 Ethernet interface.
- E The *power* LED light.
- F The *storage* LED light.
- G This LED light is not operational in IBM WebSphere CloudBurst Appliance version 1.1.
- H The *error alarm* LED light.
- I The *activity* LED light for the ETH2 Ethernet interface.
- J The *activity* LED light for the 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.

The front panel of the WebSphere CloudBurst appliance has the console connector. The serial cable that is shipped with the appliance connects to it from:

- An ASCII terminal, a simple device that transmits and receives ASCII data
- A PC that is running terminal emulation software to the appliance

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

- **MGMT Ethernet connector**

This Ethernet interface can manage all transaction data on the appliance. This connection has the following associated activity LED and speed LED lights:

Activity LED light

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

Speed LED light

This light indicates the Ethernet connection speed and status.

- **ETH0 Ethernet connector**

This Ethernet interface can manage all transaction data on the appliance. This connection has the following associated activity LED and speed LED lights:

Activity LED light

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

Speed LED light

This light indicates the 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.

Rear view

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

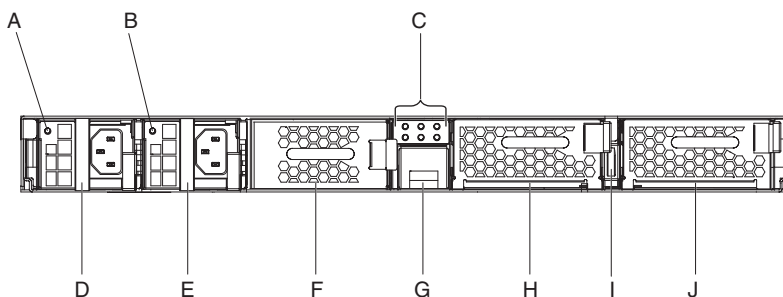


Figure 2. Rear view

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

- A The power supply 1 LED light
- B The power supply 2 LED light

- C The LED diagnostic panel
- D The power supply module 1
- E The power supply module 2
- F The data storage unit: Hard disk array
- G The battery tray
- H The fan module 2
- I The power switch
- J The fan module 1

The WebSphere CloudBurst appliance is powered by two 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 stopping 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 CloudBurst appliance comes with the hard disk array to provide data storage. The hard disk array is part of the hard disk drive module. This module contains two 146 GB disks in a Redundant Array of Independent Disks (RAID) configuration and two fans. The disks operate as a single, mirrored volume. The disks cannot be used as two discrete disks.

If one of the fans becomes inoperable, replace the hard disk drive module. 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 diagnostic panel

The rear panel of the WebSphere CloudBurst appliance provides an LED diagnostic panel with six LED lights. The layout is three LED lights in two rows, as shown in Figure 3 on page 6.

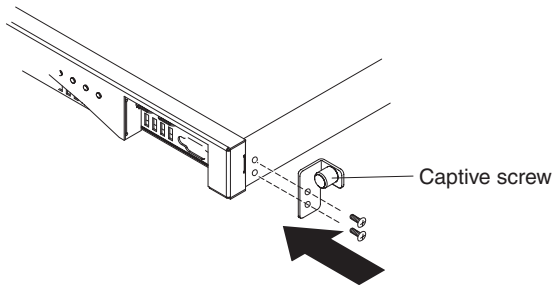


Figure 3. Diagnostic panel

Table 5 provides the meaning for each LED light.

Table 5. LED diagnostic panel

Position of light	Meaning
HDD fan, top row, left	The state of the fans in the hard disk drive module
Drive 0, top row, center	The state of the Drive 0 hard disk
Drive 1, top row, right	The state of the Drive 1 hard disk
Battery, bottom row, left	The state of the battery
Fan 2, bottom row, center	The state of the fans in the fan module 2
Fan 1, bottom row, right	The state of the fans in the fan module 1

Battery

The appliance is equipped with a CR2 3 V 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 only the following internal components:

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

Attention: Complete power failure, for example caused by no ac power to the appliance with a missing or depleted battery, for seven days activates the intrusion switch. Activation of the intrusion switch renders the appliance inoperable. To prevent returning the appliance to IBM for remanufacturing, ensure that you have a backup source of power for your appliance. Inspect the primary and secondary sources regularly, at least weekly. Leave the appliance connected to active ac power sources. Do not turn off the appliance when the battery must be replaced.

Both the firmware and the hardware monitor the battery:

Firmware

The firmware monitors the age of the battery from its installation date. When firmware is reloaded, the firmware reads the current time stamp. If more than two years has elapsed, the firmware generates a critical message. The firmware continues to generate this message at 24-hour intervals until you replace the battery. Shortly before you receive your appliance, the battery time-tracking process is initialized.

Hardware

The hardware monitors the capacity of the battery. The hardware generates critical messages when the capacity is less than 10%.

Fan modules

The appliance provides 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 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 6 lists the speeds for the front and rear fans in RPM on the appliance.

Table 6. Fan speeds in RPM

	Minimum	Cold chassis	Maximum	Failure threshold	Number of blades
Front	2900	5280	16100	2000	5
Rear	2300	4880	12400	2000	4

Chapter 2. Planning

You need some specific hardware, software, rack, and tool requirements to install and configure the WebSphere CloudBurst appliance. This set of prerequisites helps you to plan for installation, configuration, and use of WebSphere CloudBurst.

Because WebSphere CloudBurst is an appliance and software, you must plan for both the physical installation and the hardware and software required to work with clouds:

1. Plan for the physical installation. To install the WebSphere CloudBurst appliance, you need specific hardware, rack, and tool requirements. See the information in “Planning for installation.”
2. Plan for configuration. To configure and administer WebSphere CloudBurst you need some specific hardware and software. See the information in “Planning for configuration” on page 10.

Planning for installation

To install IBM WebSphere CloudBurst Appliance, you need specific hardware, rack, and tool requirements.

To use WebSphere CloudBurst, you must first physically install the appliance in the rack and connect it.

CAUTION:

As you unpack the appliance, do not misplace the serial cable that was included with the appliance. You need this cable for the initial appliance setup, and it might also be needed later for problem determination. This cable has been specially designed to work with this appliance. Other serial cables might not work with this appliance.

There are some environmental inspections of the area where you want to install the appliance and other steps that make installation easier.

Rack and environmental requirements

The rack, in which you plan to install your appliance, must meet the following requirements:

- Measure 19 inches (48.26 cm) with a minimum of depth of 25 inches (63.5 cm).
- Provide rear mounting columns. The appliance requires both front and rear mounting support.
- Provide sufficient free space in the front for the Ethernet cables and any serial console cable.

Ensure that the environment around the rack meets the following requirements:

- There must be at least 30 inches (76.20 cm) of free space behind the rack frame to remove replaceable parts.
- The ambient temperature in the operating environment and within the rack must not exceed 104° F (40° C).

Network proximity to the hypervisors is also a consideration when planning the location of your WebSphere CloudBurst appliance. Virtual images generated by WebSphere CloudBurst are transmitted to the hypervisors in the cloud. Therefore, provide WebSphere CloudBurst with a network interface on the same subnet as the hypervisors. This configuration reduces network delays when transferring virtual systems that can be several gigabytes in size.

Tools and supplies

Gather your supplies. The following parts are included with the appliance:

- Two mounting rails with built-in extenders
- Two brackets with a built-in captive screw to secure the appliance to the rack
- Two standard rack screws
- Four screws to secure the brackets to the appliance
- A serial cable for initial serial connection
- USB-to-serial adapter for use with a PC, as a serial console, that does not have a built-in serial port
- (Optional) A terminal concentrator. If you are using a terminal concentrator, you can use the supplied serial cable to connect to the terminal concentrator and a network cable to connect to the console or monitoring device. See the installation instructions for your terminal concentrator for more specific connection information.
- (Optional) USB-to-serial converter cable, if you are using a PC for the initial configuration that does not have a serial port, and the device driver. Both the cable and a CD with the device driver ship with the appliance.

In addition to the parts included with the appliance, ensure that the following supplies are available to install the appliance:

- A Phillips screwdriver
- At least one, but up to four, network cables
- A serial console with a male DB9 connector. This console could be a dedicated hardware device, such as a VT100-style console, or a PC running an emulator, such as HyperTerminal or minicom.
- (Optional) A terminal concentrator. If you are using a terminal concentrator, you can use the supplied serial cable to connect to the terminal concentrator and a network cable to connect to the console or monitoring device. See the installation instructions for your terminal concentrator for more specific connection information.

Planning for configuration

To configure and administer IBM WebSphere CloudBurst Appliance you need some specific hardware and software.

Skills required

To set up and administer the appliance, you need network administration skills. You also need technical familiarity with the hypervisors you are using and any managers that are managing them.

Hypervisors types

The following hypervisor types and versions can be used with WebSphere CloudBurst:

- IBM PowerVM server with IBM Systems Director and VMControl
For more information about IBM PowerVM hypervisors, see:
http://publib.boulder.ibm.com/eserver/roadmap_powervm.html.
- IBM z/VM with Directory Maintenance Facility (DirMaint™) enabled.
For more information about z/VM hypervisors, see: <http://www.vm.ibm.com/library/>.
- VMware ESX
For more information about VMware hypervisors, see: <http://www.vmware.com/support/pubs/>.

For information about the versions of these products supported by WebSphere CloudBurst, see the WebSphere CloudBurst information center.

The following managers can be used with WebSphere CloudBurst:

- IBM Systems Director VMControl for PowerVM hypervisors
- VMware Virtual Center for VMware hypervisors

Information required

Collect the following data to define your WebSphere CloudBurst base configuration:

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

Attention: Configuring the mail server is optional but important for operations like retrieving the password for signing on to the appliance, if it is lost.

- Network Time Protocol (NTP) server information to enable IBM WebSphere Application Server cells to function.
- (Optional) The IP addresses and subnet mask for Ethernet interfaces for appliance service access, for example ETH0, ETH1, and ETH2.

Best Practice:: For all network-wide and system-wide management functions, use the MGMT Ethernet interface on a dedicated subnet. The dedicated subnet handles network traffic for Web management, using the Web GUI, functions.

To handle data traffic to and from the various hypervisors, use the remaining Ethernet interfaces.

Cloud requirements

Your cloud configuration requires the following resources:

- Servers with a hypervisor installed
- Local or storage area network (SAN) storage
- A pool of available IP addresses that can be assigned to virtual systems
- IP address ranges to support the number of concurrent virtual machines to be deployed

- Credentials for the PowerVM, z/VM, or VMware ESX hypervisors to be used in the cloud

All hypervisors must be started before they are available to run in WebSphere CloudBurst. Your cloud of hardware, that can be one or more systems, must be at the following supported software and hardware levels:

Software

The following products work with WebSphere CloudBurst:

- PowerVM with IBM Systems Director and VMControl
A fix pack is needed for IBM Systems Director VMControl. For more information about how to get the number and designation, see the following information: http://publib.boulder.ibm.com/eserver/roadmap_powervm.html.
- z/VM with DirMaint enabled.
- VMware ESX that has been tested and had images successfully deployed on it.

If you are using ESX version 3.0.2, the ESX servers must meet the following requirements:

- The secure Shell (SSH) login must be enabled with the service console. The default setting is false, therefore, you must change this value to true to enable it.
- The SSH login user ID and password must be the same as for the Software Development Kit (SDK) Web service.
- The SSH login ID must have permission to do the file system operations.
- The Virtual Machine file system (VMFS) must be mounted at the default location. For example, */vmfs/volumes/datastoreName* is the mount point of a data store named *datastoreName*.
- The servers to which you are connecting must be ESX servers. You cannot connect to VirtualCenter 3.0.2 servers.

All VMware ESX hypervisor versions are not supported for all images. Novell SUSE Linux Enterprise Server (SLES) 11 and Red Hat Enterprise Linux (RHEL) 5.5 do not run on ESX version 3.0.X. WebSphere CloudBurst prevents these images from being placed on incompatible systems. To run ESX, 3.0.x hypervisors, use the SLES 10.2 images.

For more information about the versions of these products supported by WebSphere CloudBurst, see the WebSphere CloudBurst information center.

Hardware

You can use PowerVM, z/VM, or VMware servers with WebSphere CloudBurst. More information about configuring these servers can be found in the following locations:

- For PowerVM servers, see http://publib.boulder.ibm.com/eserver/roadmap_powervm.html.
- For z/VM, see <http://www.vm.ibm.com/library/>.
- For VMware, you need the matching ESX hardware compatibility list (HCL). See the following VMware information: <http://www.vmware.com/resources/techresources/1032>.

Hardware configuration requirements

Storage space, in a location other than the appliance, is needed to create a backup. A backup can reach 100 GB in size, depending on content. The following minimum hardware configuration is required:

- At least 4 processors/core systems
- At least 16 GB RAM
- At least 147 GB Storage

To optimize your WebSphere CloudBurst environment, the following hardware configuration is required:

- 16 core systems
- At least 64 GB RAM
- SAN storage, for example, IBM System Storage[®] DS4000[®]

Administrative client requirements

You can administer WebSphere CloudBurst with one of the following administrative clients:

Command-line interface

You can use this tool on Windows or Linux operating systems. Download and configure the command-line interface tool.

Web user interface

Use one of the following browsers:

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

Chapter 3. Installing and configuring the WebSphere CloudBurst appliance

Back up the CBADMIN user ID and password using the information in “Preserving the administrative ID and password” on page 22.

Attention: 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.

After gathering the supplies and information for installing and initializing IBM WebSphere CloudBurst Appliance, you are ready to install and configure the appliance.

Installing the rack rails

The rails are for a 19 inch (48.26 cm) rack. These rails require two standard rack screws, that are provided with the appliance, to secure the rails to the rack frame. To install the rails, use the following procedure:

1. Position the left and right mounting rails in the rack. Rail insertion is shown in Figure 4. Ensure that the two left blue tabs face the two right blue tabs. Pair the rails with the front sections together and the rear sections together, as the following information describes:
 - 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).

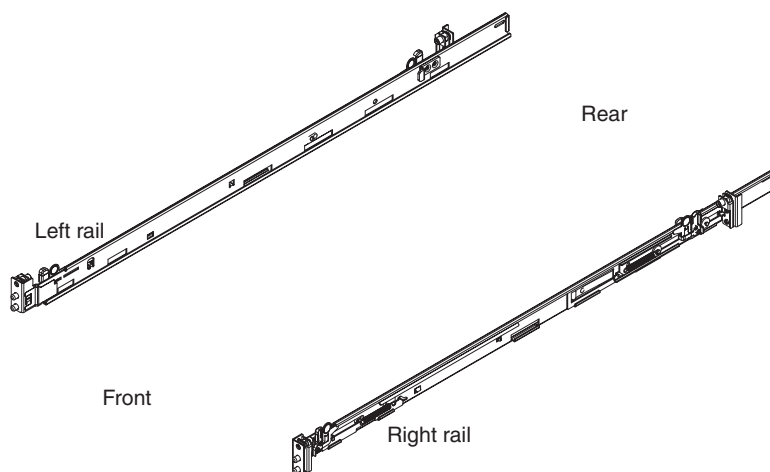


Figure 4. Orientation of the rails

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 5 on page 16.

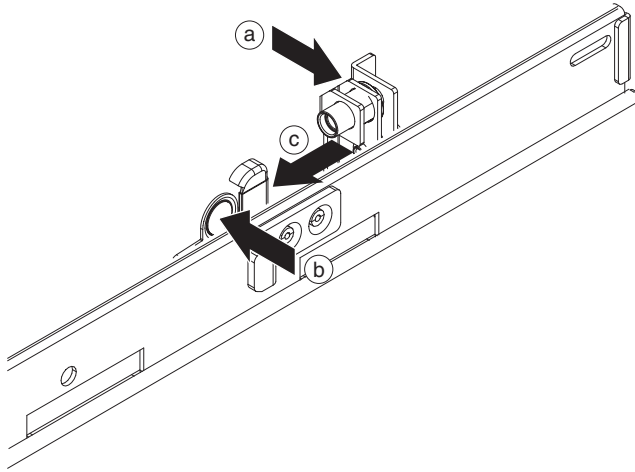


Figure 5. Rear rail attaching to the rack frame

To insert the left rear rail, use the following procedure:

- a. Place the rear bracket of the rail against the rear column of the rack frame. Position the rear column between the facing plates of the bracket.
 - b. Press and hold the blue release tab.
 - c. Press the blue lever toward the middle of the rack. The facing plates separate to expose the retractable pins.
 - d. Continue pressing 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. Close the facing plates against the column of the rack frame.
3. To secure the left rear 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. With a Phillips screwdriver, tighten the standard rack screw.
 4. Insert the left front of the rail, as shown in Figure 6 on page 17. To insert the left front rail, use the following steps:
 - a. Align the front bracket of the rack with the front column of the rack frame.
 - b. Press and hold the blue release tab.
 - c. Press the blue lever toward the middle of the rack. The facing plates separate to expose the retractable pins.
 - d. Continue pressing 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. Close the facing plates against the column of the rack frame.

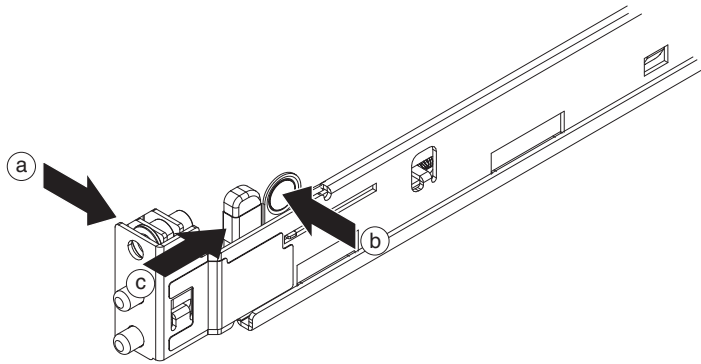


Figure 6. The front left rail attaching to the rack

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 slides on the rail. Repeat step 2 on page 15 to insert the right rear of the rail.
6. Secure the right rear of the rail. Repeat step 3 on page 16 to secure the right rear of the rail to the rack.
7. Insert the right front of the rail. Repeat step 4 on page 16 to insert the right front of the rail.

Securing the appliance in the rack

To secure the appliance, use the following procedure:

1. Slide the appliance into the rack. From the front of the rack, slide the appliance onto the mounting rails, as shown in Figure 7 on page 18. Do not slide the appliance all the way in until it locks into place.

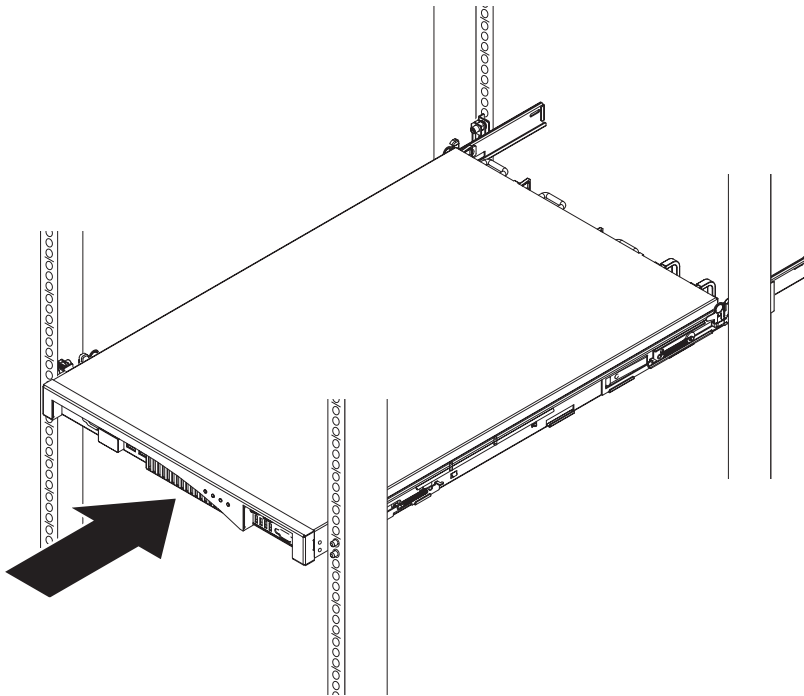


Figure 7. Sliding the appliance into the rack

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 8. Attach the right bracket to the appliance chassis:
 - a. Align the holes in the right bracket with the holes in the front right side of the appliance chassis.
 - b. With a screwdriver, tighten the provided screws into the appliance chassis.

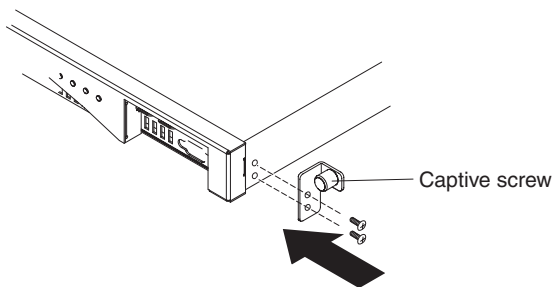


Figure 8. The bracket attaching to the appliance chassis

- Repeat this process to attach the left bracket to the appliance 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 a power source

Connect the appliance to an ac power source. Connect both power supply modules to an ac power source with the provided power cords. 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

Connect the appliance to its neighboring network devices like link partners, such as switches or load balancers, with Ethernet cables or transceivers. Do not connect to telephone or other telecommunication circuits. Do not connect with a cable that is longer than 328.084 feet (100 m).

The Ethernet port on the appliance must be connected to a compatible link partner. Preferably, the connection is set to auto-negotiate connection speed and mode, with either half duplex or full duplex. Depending on the negotiated or static connection speed and mode, ensure that the cable complies with the requirements as shown in Table 7.

Table 7. Wiring requirements by connection speed and mode

Connection speed and mode	Wiring required
1 Gb per second (1 Gbps) connection	Category 5, or better
100 Mb per second (100 Mbps) connection	Category 5, or better
10 Mb per second (10 Mbps) connection	Category 3, or better

To make the serial connection, use the following procedure:

1. Connect a terminal, a PC, or a terminal concentrator to the console connector on the appliance with the included serial cable. If the terminal or PC does not have a serial port and it only has a USB port, connect with the provided USB-to-serial adapter and use the device driver shipped on the CD with the adapter. If you are using a terminal concentrator, you can use the supplied serial cable to connect to the terminal concentrator and a network cable to connect to the console or monitoring device. See the installation instructions for your terminal concentrator for more specific information..
2. Ensure that the terminal or PC is configured for standard 9600 8n1 and no flow control operation. The terminal emulation suggested for the terminal or PC is VT100.

Chapter 4. Initializing and configuring WebSphere CloudBurst

When the IBM WebSphere CloudBurst Appliance hardware has been installed and connected, you are ready to initialize and configure the appliance. This configuration is the minimal configuration to add a WebSphere CloudBurst appliance to your environment.

To complete 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 must 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, you must use the provided serial cable.

Remember:

- Use the serial cable that was provided with the appliance and do not misplace it. You need this cable for the initial appliance setup, and it might also be needed later for problem determination. This cable has been specially designed to work with this appliance. Other serial cables might not work with this appliance.
- If the terminal or PC is not equipped with a serial port, connect with a USB-to-serial converter cable.

Attention: 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.

Configure the base firmware. This configuration is the basic configuration to add a WebSphere CloudBurst appliance to your environment. To initialize the appliance, use the following procedure:

1. Connect your serial console to the appliance using the serial cable supplied with the appliance. The serial console must be ready, so you can see messages from the appliance as it starts.
2. Ensure that 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.
 - The fans change speed as the serial console displays the following information:

```
DPOS
Loading system.....
```

Wait for a few seconds for the appliance to start. If these messages are not displayed on the serial console as the appliance starts, your serial console might not be configured correctly.

3. Click **c** to continue. Press Enter to confirm.
4. Select the language to set up. Press Enter to confirm the selection.
5. Accept the IBM WebSphere CloudBurst Appliance license agreements. Before proceeding for the first time, you must accept the licenses. To read the complete

license, press Enter. When you have read the license enter **Y** to accept or **N** to reject the agreement and cancel the configuration.

6. Enter a new password. At the **Please enter new password:** prompt, enter the password.

Tip: Consider enabling the CBADMIN password to be reset using the serial console. See the information about managing e-mail delivery in the WebSphere CloudBurst information center at the following location: <http://publib.boulder.ibm.com/infocenter/wscloudb/v2r0/index.jsp>. The password you are entering is displayed for verification.

7. Enter the password again. At the **Please re-enter new password to confirm:** prompt, enter the password again.

Attention: Put the CBADMIN user ID and password in a safe location. The password you are entering is displayed for verification.

8. Provide the required information at the following prompts to configure the MGMT Ethernet port:
 - Enter the IP address.
 - Enter the subnet mask in Classless Inter-Domain Routing (CIDR) format.
 - Enter the IP address of the Domain Name Server (DNS).
 - Enter the default gateway.
 - Select the physical mode of the Ethernet interface. Enter a value, 1 through 6, as described in Table 8.

Table 8. Physical mode of the Ethernet interface

Value	Mode
1	Auto
2	100baseTx-FD
3	100baseTx-HD
4	10baseT-FD
5	10baseT-HD
6	1000baseTx-FD

- Enter the IP address of the DNS.

The network is initialized. A configuration summary is displayed.

When the appliance initialization is complete, you return to a login prompt. To log on later, use the CBADMIN user ID and the password you set. When you log on, you can run the configuration of the MGMT Ethernet port again. Running this configuration is helpful if, for example, the appliance is connected to a different network and the configuration has not been changed using the Web console of the appliance. The only management function available after you log on to the serial port is to change the network configuration. Other management functions are available using the Web console of the appliance. The serial console bootstraps the Web console.

Preserving the administrative ID and password

The CBADMIN user ID and password are necessary to log on to the appliance. There are some methods to back up and preserve the CBADMIN user ID and password.

The first time that you start the IBM WebSphere CloudBurst Appliance is different from any subsequent restarts. On subsequent restarts from a serial connection, you

are not prompted to accept the licensing agreement or to change the password for the CBADMIN account. However, you are prompted to log on with a local account. The ID and password you set are required to log in on subsequent restarts.

Attention: If you lose the administrative ID and password without a way to retrieve them, the appliance must be returned to IBM for remanufacturing. The remanufacturing process erases all data on the appliance.

Use the following methods to preserve the administrative ID and password:

- Save the user ID and password. Put them in a secure location after you set them.
- Configure your Simple Mail Transfer Protocol (SMTP) server and provide an e-mail address. If you did not change the user ID, you can configure your SMTP server and provide an e-mail address for the administrative user, which is CBADMIN. If the password is lost, it can be sent to the e-mail address you provide. For more information, see the WebSphere CloudBurst information center at the following location: <http://publib.boulder.ibm.com/infocenter/wscloudb/v2r0/index.jsp>.
- Enable a password reset from the serial console. Depending on your security requirements, you can enable the option to *Allow password reset from the serial console*. For specific information about enabling this option, see WebSphere CloudBurst information center at the following location: <http://publib.boulder.ibm.com/infocenter/wscloudb/v2r0/index.jsp>. Using this option, your password can be reset and an e-mail notification, containing a new password, is sent to the address supplied for the administrative user ID. Enabling a password reset provides a measure of security. It prevents anyone from resetting the password remotely but still allows access to the machine if you forget the password.

Configuring the administrative clients

To manage your appliance settings, like security and configuring users and groups, you must use the Web user interface. You can work with other WebSphere CloudBurst function, like managing your cloud resources, using the Web interface or the command-line interface.

You can use one of the following tools to work with WebSphere CloudBurst:

- command-line interface
 - Web user interface
1. Set up the Web interface. You must use the Web interface to set up your appliance settings. See the information about managing your appliance settings in the WebSphere CloudBurst information center at the following location: <http://publib.boulder.ibm.com/infocenter/wscloudb/v2r0/index.jsp> for details. To use the Web user interface, use the following steps:
 - a. From a computer that is connected to the network, open one of the following browsers:
 - Mozilla Firefox, version 3.0.x
 - Microsoft Internet Explorer, version 7 or 8
 - b. In the address bar, enter the URL and port information defined during the device initialization, for example <https://myCloudBurst.ibm.com/>
 - c. Log in using the following user ID and password:

User ID

CBADMIN

Password

The password you set for the CBADMIN administrative user.

- d. Click **Login**. When using the Web user interface, refresh the panels to see status changes.
2. Optional: After you configure your appliance settings, you can use either the Web user interface or the command-line interface to work with WebSphere CloudBurst. See the information about downloading and configuring the command-line interface in the WebSphere CloudBurst information center at the following location: <http://publib.boulder.ibm.com/infocenter/wscloudb/v2r0/index.jsp> for details.

You can configure your appliance settings, as discussed in information about managing your appliance settings in the WebSphere CloudBurst information center at the following location: <http://publib.boulder.ibm.com/infocenter/wscloudb/v2r0/index.jsp>. You can perform the following tasks:

- Configure settings to specify the Domain Name System (DNS) server to be used by the appliance.
- Configure a Network Time Server (NTP) for clock synchronization and to set up both the appliance and the hypervisors.
- Configure e-mail delivery and notifications with the Simple Mail Transfer Protocol (SMTP) server you define. Though setting up e-mail delivery is not required, if you configure an SMTP server you can reset your password and it can be sent to you if you forget it.
- Configure logging and auditing.
- Enable the CBADMIN password to be reset using the serial console.
- Update the firmware. To update the WebSphere CloudBurst firmware, you must have appliance administration permissions.

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 26
- “Contacting IBM Support” on page 27

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 CloudBurst Appliance 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 e-mail 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 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 next segment of the product; for example, **Application Integration and Connectivity**
 - e. From the list of displayed products, select all products for which you want to receive updates; for example **WebSphere CloudBurst appliance**
 - f. Click **Add products**
6. Click **Subscribe to e-mail**.
7. Select the types of e-mail to receive:
 - a. From the list, select **Software**
 - b. Select **Please send these document by weekly e-mail**
 - 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, and to download updates, navigate to one of following Web addresses:

The IBM WebSphere CloudBurst Appliance support page

<http://www-01.ibm.com/software/webservers/cloudburst/support/>

You can search for information on this site or click any of the links to obtain a download or search available documentation.

Fix central

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

1. From the **Product Group** drop down list, select .
2. From the **Product** drop down list, select **WebSphere CloudBurst Appliance**.
3. From the **Installed version** drop down list either select the version of WebSphere CloudBurst that you are using or select **all** to see available updates for all versions.
4. Leave **All** as the default setting in the **Platform** drop down list.
5. Click **Continue**.

6. Sign in providing your **IBM ID** and **Password**.
7. Click **Continue**.
8. You can then browse for information about fixes in a variety of ways (including by recommendation, keyword, or APAR number) to find a 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. From the **Overview** section on the right of the page, click the **Support handbook** link.
 - c. Bookmark this page for future reference.
- From this page, you can obtain a PDF copy of the handbook.
2. Gather diagnostic information.
 - a. Access product support at the following Web address:

http://www.ibm.com/support/entry/portal/Open_service_request/Software/WebSphere/WebSphere_CloudBurst_Appliance

- b. Locate the **Before submitting a request** area of the product support page.
 - c. Click **MustGather: Read first for IBM WebSphere CloudBurst Appliance** 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

- a. Navigate to the IBM Support Web site (<http://www.ibm.com/support>).
- b. Locate the **Electronic services** section of the page.
- c. Click **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 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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Important notes

This product is not intended to be connected directly or indirectly by any means whatsoever to interfaces of public telecommunications networks nor is it intended to be used in a public services network.

Electronic emission notices

Federal Communications Commission (FCC) statement

Note: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in

accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at his own expense.

Properly shielded and grounded cables and connectors must be used in order to meet FCC emission limits. IBM is not responsible for any radio or television interference caused by using other than recommended cables and connectors or by unauthorized changes or modifications to this equipment. Unauthorized changes or modifications could void the user's authority to operate the equipment.

This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Industry Canada 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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