

# IBM Workload Deployer V3

## Appliance initialization



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This presentation will discuss steps to initialize the IBM Workload Deployer V3.

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This presentation shows an overview of the IBM Workload Deployer V3 appliance initial setup. It discusses the physical racking of the appliance. Then it discusses the initial appliance configuration using the serial connection cable and opening the IBM Workload Deployer administrative console. It shows an overview of the customization of the “cbadmin” profile. Finally, you will see configuration information that you will need as you begin the integration of IBM Workload Deployer into your testing or production environment, followed by a summary of this presentation.

## ***Overview of IBM Workload Deployer appliance initial setup***

This section will present an overview of the IBM Workload Deployer appliance initial setup.

## Appliance physical attributes

- IBM Workload Deployer ships as an appliance
- 2U mountable appliance – dimensions 8.89 cm (3.5 in) x 43.8 cm (17.25 in) x 58.4 cm (23 in)
- Installs onto an EIA-310-D 48.3-cm (19-in) rack with at least 71.1 cm (28 in) of depth



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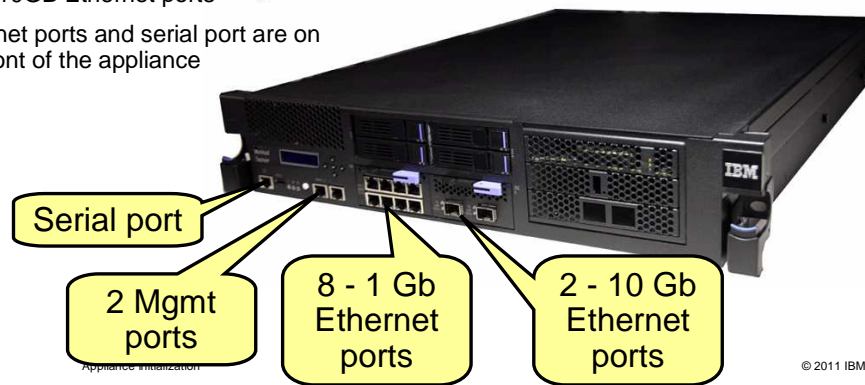
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The IBM Workload Deployer appliance is a 2U mountable appliance that installs in an EIA-310-D 48.3-cm (19-in) rack. The hardware appliance requires front and rear mounting support with standard clearance for appliance operation.

## IBM Workload Deployer Appliance hardware

- IBM Workload Deployer included hardware:
  - Power cables
  - Serial cable (Ethernet to serial)
  - Rack rails
- Appliance interface:
  - Serial port for initial configuration
  - 2 Mgmt ports (MGMT 0, MGMT1)
  - 8 1GB Ethernet ports
  - 2 10GB Ethernet ports
- Ethernet ports and serial port are on the front of the appliance



The IBM Workload Deployer Appliance has all the required hardware included with it to install onto the rack, including two power cables, a serial interface connection cable, and rack rails. On the front, from left to right, you have one serial port, two MGMT ports (MGMT 0 and MGMT 1), eight one-gigabit Ethernet ports, and two ten-gigabit Ethernet ports.

To perform appliance initialization, you connect the Ethernet-to-serial interface cable from the front of the appliance to the serial interface connection port on a computer that is running a serial terminal emulator program.

## Setting up IBM Workload Deployer for the first time

- Initial setup of the appliance includes:
  - Secure the appliance in the rack using the supplied hardware
  - Connect the appliance to an AC power source (both power supply modules)
  - Connect the MGMT 0 port to the network
    - The serial console initialization only sets up access to the MGMT 0 port
    - You can set up the MGMT 1 port later if you choose to use it
  - Establish a connection to the serial console from a system running terminal emulation software using the supplied Ethernet-to-serial cable
  - Power on the appliance
  - Perform the initial appliance configuration

To set up the IBM Workload Deployer appliance, install the appliance on the rack using the supplied hardware. After the appliance is secured to the rack, connect the Ethernet port labeled MGMT 0 to the local area network using an Ethernet cable. Connect two power cables to the appliance and plug them into a power source. Connect the Ethernet-to-serial connection cable to the serial port on the IBM Workload Deployer appliance, and connect the other end of the cable to a computer system that is running the serial terminal emulation software. Finally, power on the appliance and perform the initial appliance configuration using the terminal emulation software.

## ***Performing initial appliance configuration***

This section will discuss the initial appliance configuration.

## Serial console

- During appliance initialization you must connect to the serial port on the left front of the IBM Workload Deployer appliance
- When using a terminal emulator program, connection must be
  - 9600 baud
  - 8N1 (8 bits per character, no parity, 1 stop bit)
  - No flow control
- If your operating system does not recognize the USB-to-serial adapter cable
  - Download the PL-2303 driver for the cable from the internet

When you begin the process to initialize your appliance, you must connect to the serial port on the left front of the IBM Workload Deployer appliance. If you use a terminal emulator program, the connection must be 9600 baud, 8 bits per character, no parity, and 1 stop bit, with no flow control. If your operating system does not recognize the supplied USB-to-serial adapter cable, download the PL-2303 driver for the cable from the internet.



## Initial appliance configuration – License agreement

- After initialization messages, you will see the license agreement
- Respond by typing
  - <ENTER> for next page (called RETURN) to read the agreement, or
  - “A” <ENTER> to accept the license agreement, or
  - “R” <ENTER> to reject the license agreement, or
  - “S” <ENTER> to begin reading the license agreement again
    - You are prompted for this only the first time through the appliance configuration
    - You must agree to the license agreement to continue initialization

```

Starting system... dn un vnm r1 r2 lo lu pt tc. mp ...
<other initialization messages>
IBM Workload Deployer
Version : 3.0.0.0-32825 / 20110519-2145-820
International License Agreement
Part 1 – General Terms
(Your license agreement displays here – not shown in slide)
RETURN next page; Accept; Reject; StartOver: A
  
```



If the serial terminal console is connected when you first power on the appliance, then you will see some messages, eventually followed within 5 minutes by the license agreements. If you need to start over reading the license agreement, type S and press ENTER. Press ENTER to go to the next page of the license agreement. Type A and press ENTER to accept the license agreements. Type R and press ENTER to reject the license agreement. You must accept the license agreement before you can continue initialization. You will see these prompts for license agreement only during initial appliance configuration, assuming you accept the license agreement during the configuration steps.

## Initial appliance configuration – Password reset

- Type the new cbadmin password
  - During appliance initialization, restrict the password to alpha-numeric characters
  - Later, you can use the administrative console to change the password using a larger character set

Welcome to the IBM Workload Deployer set-up wizard

Enter new password:

Confirm new password:

Changing password...

Ok

During the initial appliance configuration sequence, you are required to change the password for the cbadmin account. The set-up wizard prompts you for the new password. Type the new password, and when prompted to confirm, type the new password again. The cursor will move but no characters display on the screen. Restrict your password to alpha-numeric characters only. Later you can use the administrative console to change the password using a larger character set. When you see the “OK” response, the wizard will continue to the next phase of appliance initialization.



## Initial appliance configuration – MGMT IP address and gateway

- Type the MGMT 0 Ethernet port IP address in CIDR format

Enter the IP Address for the MGMT Ethernet port in classless inter-domain routing (CIDR) format, e.g. 10.15.102.161/24: **9.3.77.81/24**

**(ENTER)**

- Type the address for the default gateway

Enter the Default Gateway for the MGMT Ethernet port, e. g. 10.15.102.1: **9.3.77.1**

**(ENTER)**

Of the many Ethernet ports on the front of the appliance, one is marked MGMT 0. In this step you are configuring the Ethernet port marked MGMT 0. Type the IP address that you want to configure for the IBM Workload Deployer administrative console, which is accessed using the MGMT 0 port IP address. Type the IP address in classless inter-domain routing, or CIDR, format, and press ENTER. Then type the IP address for the default gateway and press ENTER.



## Initial appliance configuration – Ready to set

- Review the settings and press ENTER to configure your settings

```
Ready to set IPAddress=9.3.77.81/24 DefaultGateway=9.3.77.1. Press Enter to continue:  
(ENTER)  
Setting  
Ok
```

Review the settings and press ENTER to continue. The system will respond with the word “Setting” and then “Ok” when it is complete.

## Initial appliance configuration – Configuration summary

- Configuration summary
  - Configuration has been saved
  - Disconnect serial cable to end configuration process
  - You can use serial cable at any time to reconfigure
  - Some changes can be performed using an SSH session to the appliance

Network setup is complete. Configuration Summary:

IP Address/Mask: 9.3.77.81/24

Default Gateway: 9.3.77.1

This completes the first boot process.

Point your browser to <https://9.3.77.81/login> for the web console and login as “cbadmin” with the password you just entered.

You can login here again if you need to reconfigure the IP interface or configure DNS and NTP servers.

Console>

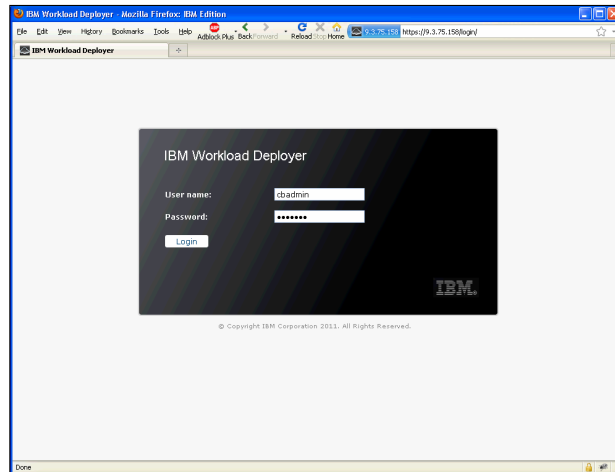
This is the configuration summary. At this point the configuration has been saved. At this point you can disconnect the serial cable and shut down the serial console emulation program on your computer. The summary confirms the MGMT 0 port address and mask and the default gateway address. It informs you that the first boot process is completed and tells you the URL to use to login to the IBM Workload Deployer administrative console. The screen reminds you that you can use the serial console access again to reconfigure the IP interface or to configure DNS and NTP servers. You can configure the DNS and NTP servers and many other settings once you log into the IBM Workload Deployer administrative console. As you will see later, many changes can be performed from the command line in a serial console or SSH session.

## ***Logging on to the IBM Workload Deployer administrative console***

This section will discuss logging on to the IBM Workload Deployer administrative console.

## IBM Workload Deployer administrative console

- Supports Firefox V3 or Internet Explorer V7 or V8
- Accessed using the connection to the MGMT 0 port defined during initial configuration
- Log in using super user account (“cbadmin”) defined during initial configuration



The IBM Workload Deployer administrative console supports Microsoft® Internet Explorer Version 7 or Version 8 and Mozilla Firefox Version 3. The administrative console is accessed by the MGMT 0 IP address that you assigned during appliance initialization. Log in to the appliance using the super user account **cbadmin** and the password you configured.

## Welcome screen

- Default page presented at log in to the IBM Workload Deployer administrative console



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The IBM Workload Deployer welcome screen has a list of steps to help new users get the appliance and your cloud up and running quickly.

There are links associated with each setup step that help users navigate to the appropriate pages in the IBM Workload Deployer administrative console.

Each of the links that reside in the welcome screen navigates to pages that are available from the hyperlink tabs at the top of the console screen. The links allow you to configure appliance settings, configure cloud resources, work with reports, the catalog, patterns and instances, and download the command line tools.



## ***Customizing the cbadmin profile***

This section will discuss how to customize the cbadmin profile using the IBM Workload Deployer administrative console.

## Customizing your profile

- Click “Profile” to see settings specific to the current user

Click  
Profile

IBM Workload Deployer

Welcome, Administrator | Help | About

Welcome Instances Patterns Catalog Reports Cloud Appliance **Profile** Logout

IBM Workload Deployer

Deploy your application using the IBM Workload Deployer and let the system manage your application's Middleware needs.

Download command line tool

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Clicking on the “Profile” link from the Welcome page brings you to the “Profile” page, where you can configure your password and email address. If you are logged in with the “cbadmin” administrator account, you can customize the profile for the super user account **cbadmin**, including changing the password. When you do change the cbadmin password, ensure that you document the password carefully. A lost cbadmin password might require you to return the appliance to IBM for remanufacturing, which removes all your appliance data and configuration.

## Profile page of cbadmin

- Displays information about the user ID currently logged in
- You can change
  - Name
  - Email address
  - Password
  - Toggle on or off email notifications for events related to virtual systems and virtual images
  - Example is for **cbadmin** account

The screenshot shows the 'Profile settings for Administrator' page in the IBM Workload Deployer interface. The page has a dark header with the title 'IBM Workload Deployer' and a user welcome message 'Welcome, Administrator | Help | About'. Below the header is a navigation bar with links: 'Welcome', 'Instances', 'Patterns', 'Catalog', 'Reports', 'Cloud', 'Appliance', 'Profile' (highlighted), and 'Logout'. The main content area is titled 'Profile settings for Administrator' and contains five rows of settings:

Change your name	Administrator
Change your email address	None provided
Change your password	..... [edit]
Receive email about your virtual systems	Enable
Receive email about virtual images	Enable

The profile page allows you to change your password, set up an email address, change your name, and toggle the settings on email notification for your virtual systems and for virtual images.

If you select **enable** for “Receive email about your virtual systems”, you receive emails for events related to your virtual systems, such as when virtual systems that you are deploying become available. If you select the **enable** option for “Receive email about virtual images”, you receive emails for events related to virtual images, such as when virtual images are exported and imported.

## Allowing cbadmin password reset from the serial console

- You must have administrative authority
- Navigate to **Appliance > Security** and expand **Security**
- When set, the serial console command “**password RESET**” can be used if the password is forgotten or lost

### Appliance settings for 172.16.76.11

#### + Appliance Identification

#### - Security

#### Permissions

Allow new users to create their own accounts

Allow password reset from the serial console

#### Sessions

Logout inactive users after 24 hours. [\[edit\]](#)

This feature allows you to reset the cbadmin password from the serial console in case you have lost or forgotten the password. Once the “Allow password reset from the serial console” is enabled, then you issue the “password RESET” command in the serial console and you are prompted to type in a new password.

## ***Using the serial console after appliance initialization***

This section will discuss some common changes you will probably make after appliance initialization.

## Using the serial console after appliance initialization

- To use the serial console after appliance initialization
  - Connect the Ethernet-to-serial cable from the appliance to the computer running the serial terminal emulation program
  - Press <ENTER>  
Console>
- Most common usage: Changing the IP address for the MGMT 0 port
  - Do not use SSH for modifying the MGMT 0 port
- Other changes can be accomplished using the appliance administrative console, an SSH session, and the serial console
  - Commands are the same for serial console and SSH session

After appliance initialization, the serial console access is still available and no login is required. Simply connect the Ethernet-to-serial cable from the appliance to the computer running the serial terminal emulation program, and press ENTER, and you should see a “Console” prompt. The most common reason you will use the serial console again is to change the IP address for the MGMT 0 port, since this cannot be done using the administrative console and should not be attempted using SSH. Other changes can be performed in the appliance administrative console, in SSH, or in the serial console.

## Serial console help

- Help command
  - help
  - help <commands | show | status>
- Example of help for a specific command
  - help netif
    - netif set <interface> <param>=<value>...
    - netif show [<interface>]
    - netif status [<interface>...]

When running in the command console mode, type the help command to be reminded how to get more help information. For example, type “help commands” to see a condensed list of the commands. If you need help on a specific command, type “help” and the specific command of interest. For example, if you wanted more help for the netif command, type “help netif” and press ENTER.

## Common commands used in the serial console

- Change IP address of MGMT 0 port
  - netif show mgt0
  - netif set mgt0 <options>
    - Example:
      - netif set mgt0 enabled=true DefaultGateway=9.3.79.1 IPAddress=9.3.79.155/24
      - Setting
      - Ok
- Set DNS
  - set-dns-servers <server1 IP> < server2 IP>
- Set NTP servers
  - set-ntp-servers <server1 IP or host name> <server2 IP or host name>

Here are three commands you might typically use in the serial console. You can use the “netif set mgt0” command to change the IP address for the MGMT 0 port in the serial console. Do not issue this command in an SSH shell, since it will cause you to be disconnected from the appliance. You can use the “set-dns-servers” command to set a single or multiple DNS servers in the configuration. You can use the set-ntp-servers to set one or more network time protocol servers in the configuration.



## Enabling the second MGMT port

- Set the IP address of MGMT 1 port
  - netif show mgt1
  - netif set mgt1 <options>
- Using MGMT 1 port is optional

Example:

```
netif set mgt1 enabled=true DefaultGateway=9.3.79.1 IPAddress=9.3.79.156/24
```

```
Setting
```

```
Ok
```




You can use the “netif set mgt1” command to enable the MGMT 1 port in the serial console. Enabling this second administrative console port is optional.

## Changing the password for cbadmin in the serial console

- You can change the cbadmin password:
  - In appliance administrative console if you have administrative authority
- You can change the password in SSH or the serial console if you know the current password

```
Console> user password
current password: *****
new password: *****
confirm password: *****
changing password. . .
Ok
```





You must know the current **cbadmin** user password to change it

As you have previously seen, you can change the password for the cbadmin user account in the administrative console. If you know the password for the cbadmin user account, you can also change it in the serial console or in an SSH session. Type the **user password** command, and you are prompted for the new password. After typing the password, you are prompted to type the password again. The **Ok** response indicates the password was successfully changed.

## Resetting the password for cadmin in the serial console

- You can RESET the cadmin password:
  - In an SSH session or in serial console session IF:
    - “Allow password reset from the serial console” has been enabled in the administrative console
  - Password is set to “cadmin”

 Console> **password RESET**  
You must enable password reset in the security settings UI.

 Console> **password RESET**  
Resetting password. . .  
OK

“Allow password reset...”  
**not** enabled in the  
administrative console  
security settings

“Allow password reset...”  
enabled - RESET succeeds;  
password set to “cadmin”

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If you enabled “Allow password reset from the serial console” in the administrative console, you can reset the password for cadmin from the serial console or from an SSH session by using the **password RESET** command. The first example shows the response when the “Allow password reset” permission is not enabled. The second example shows a successful password reset. The **password RESET** command resets the password value to **cadmin**. The “RESET” must be typed in all caps. The password is reset to the string “cadmin”.

## SSH access

- SSH access is available after initial configuration
  - Do not use an SSH session to change the MGMT 0 settings

```
[user@aimcp061 bin] ssh cbadmin@9.3.75.158
```

```
The authenticity of host '9.3.75.158' can't be established.  
RSA key fingerprint is (finger print string)  
Are you sure you want to continue connecting (yes/no) yes  
Warning: Permanently added '9.3.75.158'(RSA) to the list of known hosts.
```

```
Password:
```

```
Last login: Wed Apr 13 17:09:04 CDT 2011...  
IBM Workload Deployer  
Version: 3.0.0.0-32825 / 20110519-2145-820  
Copyright 2010-2011, IBM Corporation
```

```
Console>
```

SSH access is available after you initially configure the appliance. All commands that are available to you in the serial console environment are available in the SSH environment. You can only connect to the appliance using the cbadmin credentials.

## ***Summary***

This section summarizes the appliance initialization presentation.

## Summary

- Overview of the IBM Workload Deployer appliance initial setup
  - Performing initial appliance configuration
  - Logging on to the IBM Workload Deployer administrative console
  - Customizing the cbadmin profile
  - Making changes after the initial configuration

This presentation discussed the IBM Workload Deployer appliance initial setup and configuration.

You saw an overview of the appliance initial setup. The overview included racking information and performing initial appliance configuration, logging onto the administrative console, and customizing the cbadmin profile. Finally you saw information about typical changes you are likely to make when you begin to integrate the IBM Workload Deployer into your testing or production environment.

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