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User Guide

Author Rune Piselli (J2easy developer)	Audience J2easy user	Version 0.2	Page 1/20	<i>Any right reserved.</i>
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 J2easy		Emission date 25/05/2006	Title J2easy User Guide
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Author Rune Piselli (J2easy developer)	Audience J2easy user	Version 0.2	Page 2/20	<i>Any right reserved.</i>
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		Emission date 25/05/2006	Title J2easy User Guide
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Author Rune Piselli (J2easy developer)	Audience J2easy user	Version 0.2	Page 3/20	<i>Any right reserved.</i>
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DOCUMENT INDEX

1 Introduction.....7

1.1 DOCUMENT GOALS.....7

1.2 DEFINITIONS AND ACRONYMS.....7

 1.2.1 Definitions7

 1.2.2 Acronyms.....8

1.3 ASSUMPTIONS AND DEPENDENCIES.....9

1.4 ASSUMPTIONS.....9

1.5 DEPENDENCIES.....9

1.6 SYSTEM REQUIREMENTS.....9

1.7 CONTENT AND STRUCTURE OF THE DOCUMENT.....9

2 Appliance overview.....10

 2.1.1 Appliance goals.....10

 2.1.2 Appliance description.....10

 2.1.2.1 Appliance features.....11

3 Installation.....12

3.1 INSTALLATION.....12

 3.1.1 VMWare setup.....12

 3.1.2 Appliance download.....12

 3.1.3 Starting the appliance.....12

 3.1.4 Configuring the appliance.....14

 3.1.5 Configuring JBoss15

3.2 JBOSS ADMINISTRATION17

 3.2.1 The administration console.....17

 3.2.2 The file manager.....18

 3.2.3 Deploying.....18

 3.2.4 Deploying WebApps and WebServices.....18

3.3 APPLIANCE ADMINISTRATION19

 3.3.1 Sysconfig.....19

IMAGES INDEX

Img. 1 J2easy appliance selection.....13

Img 2 Appliance startup.....13

Img 3 JBoss services selection.....14

Img 4 Installation report.....16

Img 5 J2easy JBoss admin console.....17

Img 6 Sysconfig menu.....19

TABLES INDEX

Table 1: Definitions.....	7
Table 2: Acronyms.....	8

1 INTRODUCTION

1.1 Document goals

This document helps the end user in the installation and the administration of the J2easy appliance.

1.2 Definitions and acronyms

This paragraph gives the definition of all the terms and acronyms used in the current document.

1.2.1 Definitions

The table that follows collects all the definition and terms of the document (TBW):

Definizioni	Descrizione
Appliance	A pre configured system to be used to perform a defined work.
Application Server	A server that offers at runtime services to the running applications

Table 1: Definitions

1.2.2 Acronyms

The table that follows collects all the acronyms of the document (TBW):

Acronimi	Descrizione
API	Application Programming Interface
AS	Application Server
DS	Data Source
EAI	Enterprise Application Integration
EAR	Enterprise Archive
HTTP	Hyper Text Transfer Protocol
HTTPS	Secure Hyper Text Transfer Protocol
J2EE	Java 2 Enterprise Edition
JTA	Java Transaction Architecture
JMS	Java Messaging Service
ROI	Return Of Investment
SCP	Secure copy
SSH	Secure SHell
SW	SoftWare
TBC	To Be Confirmed
TBD	To Be Defined
TBV	To Be Verified
TBW	To Be Written
WS	Web Service
WSDL	Web Service Description Language
XML	eXtensible Markup Language

Table 2: Acronyms.

1.3 Assumptions and dependencies

1.4 Assumptions

To use the appliance the following assumptions applies:

- the user can use a web browser
- the user can use a console
- if the user is a developer the user must know how to develop and maintain J2EE apps

1.5 Dependencies

To work the appliance depends on and uses the following SW and systems:

- FC5
- JBoss 4.x
- JDK 1.5
- A vmware virtualization product (VM Player, VM Workstation, VM Server)

1.6 System requirements

See the vmware HW requirements and in addition to run the appliance need 512mb of Ram and 1,5Gb of free disk space.

1.7 Content and structure of the document

The document (TBW) contains the following chapters:

- Chapter 1 – Overview of the product
- Chapter 2 - Setup vademecum
- Chapter 3 – Administration guide

2 APPLIANCE OVERVIEW

This chapter gives an overview to reader of the J2Easy appliance.

2.1.1 Appliance goals

The aim of J2easy is to make JBoss AS easy to install, configure and manage.

It's intended to be used by system administrator of organization and companies that uses virtualization technologies.

2.1.2 Appliance description

The appliance is a preinstalled JBoss AS on a FC5 OS with a set of administration tools written to speed up the installation process and to make it easy to administrate.

These tools consist in:

- a sysconfig script
- a setup web app
- a console web app

Thanks to these tools it is possible to have a clean installation without unnecessary SW maintaining the appliance very usable.

On the security side the appliance provides a balanced solution between usability and security.

2.1.2.1 Appliance features

The appliance have the following features:

- Web based JBoss installation
- Web based JBoss administration
- Web based File Manager
- JBoss footprint finetuning
- JNDI constraint validation
- Apache Mod Proxy enabled
- Easy appliance configuration via sysconfig
- Preinstalled security hardening with bastille
- Preinstalled Midnight Commander
- Runs on any vmware enabled enviroment

In details the installation and administration tools permits to remotely manage:

- DataSources: MySQL, Postgrel, Hypersonic, Oracle
- JMS destinations
- Java Mail
- Log4J Categories
- Apache Mod Proxy
- Account admin
- Remote administration and viewing of any jboss configuration file via the File Manager
- Remote viewing of the Linux log folder

In details sysconfig provides access to the following administration tools:

- Host name
- Keyboard configuration
- Network configuration
- Firewall configuration
- Timezone configuration
- System services configuration

3 INSTALLATION

This chapter is a vademecum for the installation of the appliance.

3.1 INSTALLATION

Follow the steps indicated in the next paragraphs.

3.1.1 VMWare setup

First of all you need to have a Vmware virtual machine.

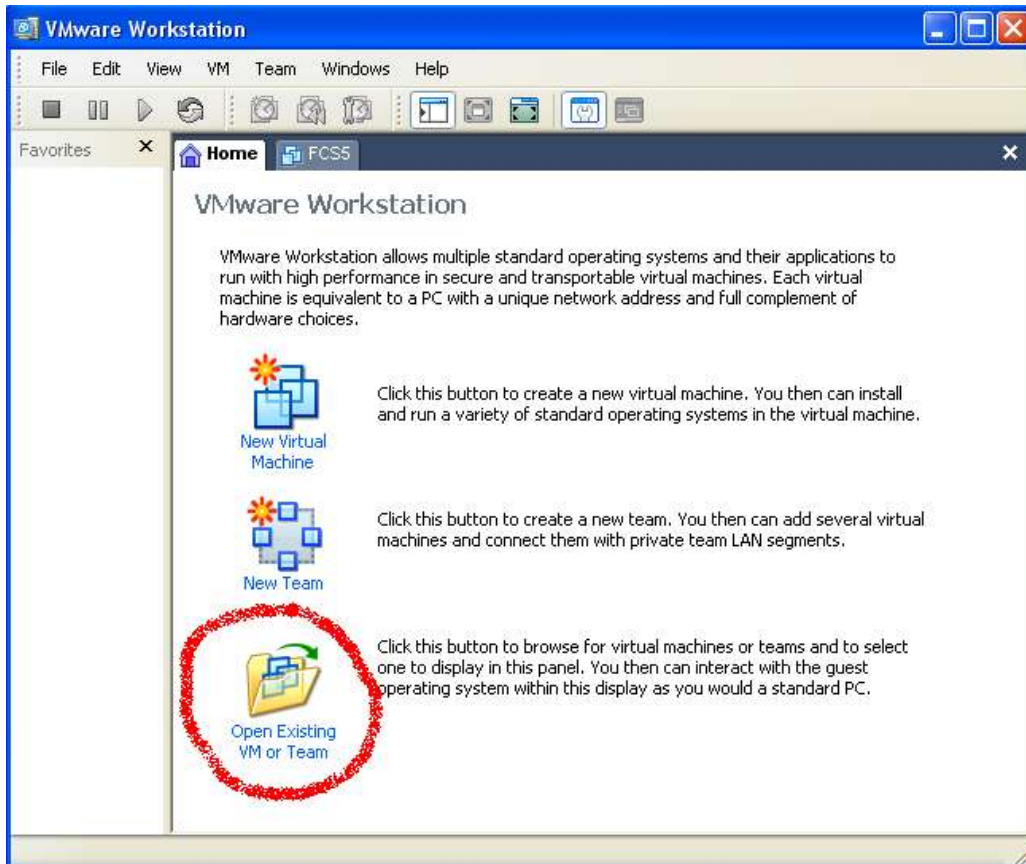
If you haven't got it go to the vmware website: <http://www.vmware.com>

3.1.2 Appliance download

If you don't have it go to the J2easy website (<http://j2easy.sourceforge.net>) and download the appliance from the "Download" section.

3.1.3 Starting the appliance

Start the VMWare SW (in this guide we're going to use the VMWare Workstation 5.5.x) and select the J2easy Appliance clicking on "Open existing VM or Team" (Img. 1.).



Img. 1 J2easy appliance selection

Start the appliance pressing the “Start this virtual machine” button (Img. 2).



Img 2 Appliance startup

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3.1.4 Configuring the appliance

After the first startup of the system the sysconfig menu will be shown.

At the first startup, the sysconfig menu is different from the one made for the ordinary administration.

Using the sysconfig menu configure your appliance.

The only mandatory section is the system passwords.

The other section are configured by default as follows:

- Hostname:j2easy
- Network:DHCP
- Keyboard:US
- Firewall: The only open ports are – 22, 80

After you've completed the configuration press "e" and the appliance will reboot and you're ready to configure JBoss.

		Emission date 25/05/2006	Title J2easy User Guide
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3.1.5 Configuring JBoss

The configuration of JBoss is web based and is done via the setup web app. Connect to it at the address `http://your_appliance_ip/setup`

The appliance are not going to respond to `http://localhost` but at the address you've provided.

Accept the terms and conditions and press: continue.
The list of available service will be displayed, select the ones of your interest and press continue.



Select the services you are going to use.

Data sources	J2EE	Remoting	Varia
<input type="checkbox"/> MySQL	<input type="checkbox"/> JMS	<input type="checkbox"/> RMI/HTTP invoker	<input type="checkbox"/> AOP
<input type="checkbox"/> PostgreSQL	<input type="checkbox"/> Java Mail	<input type="checkbox"/> WS	<input type="checkbox"/> Scheduler
<input type="checkbox"/> Hypersonic SQL		<input type="checkbox"/> JUDDI	<input type="checkbox"/> UUID key generator
<input type="checkbox"/> Oracle		<input type="checkbox"/> CORBA/IIOP	<input type="checkbox"/> SNMP

The RMI/HTTP invoker is needed to access via RMI/HTTP your MBeans and EJB.

Img 3 JBoss services selection

Now depending on the choiced services different forms will be displayed asking you to configure the services.

After you have to provide at least one log4J category and, more important, the web administration password.

This account is going to be used to access the following web apps:

- /console
- /web-console
- /jmx-console

Author Rune Piselli (J2easy developer)	Audience J2easy user	Version 0.2	Page 15/20	<i>Any right reserved</i>
---	--------------------------------	-----------------------	----------------------	---------------------------

		Emission date 25/05/2006	Title J2easy User Guide
--	--	------------------------------------	-----------------------------------

At the end of the process the installation report page is displayed (Img. 4).



Img 4 Installation report

You've successfully installed a JBoss AS on a FC5.

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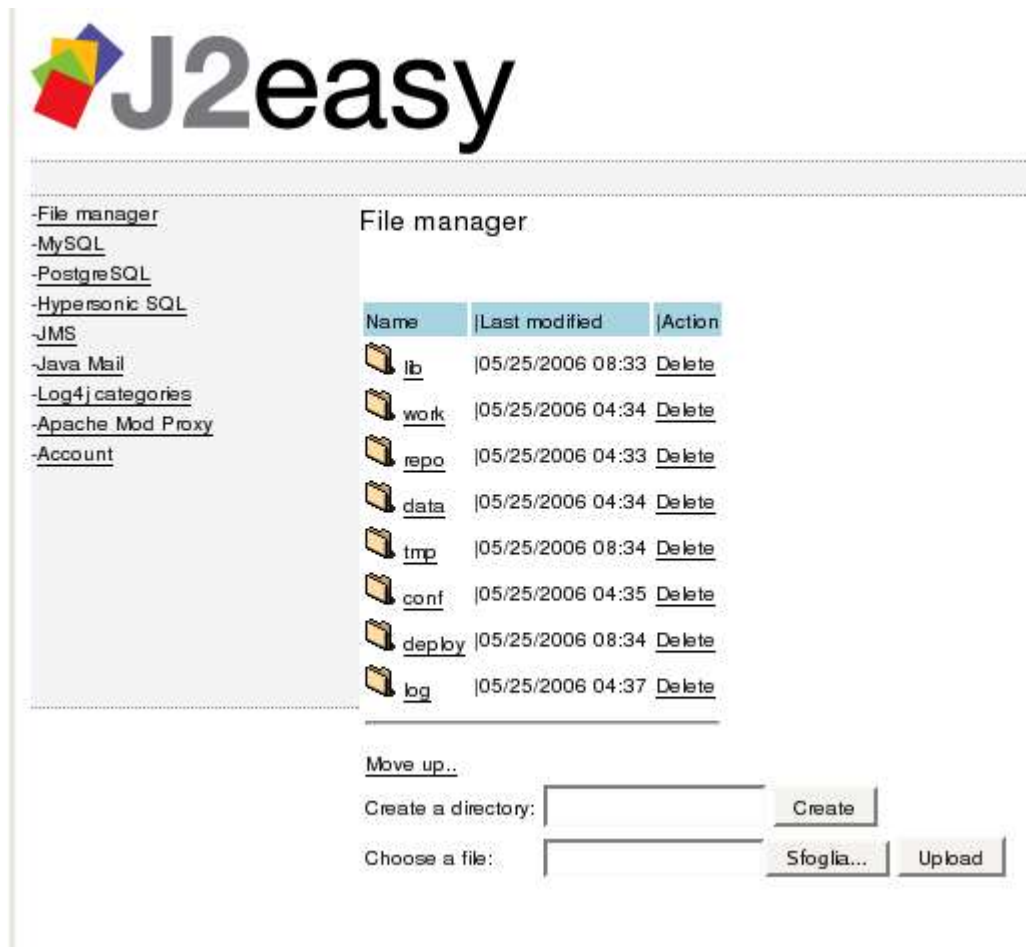
3.2 JBOSS ADMINISTRATION

3.2.1 The administration console

With the administration console you can manage JBoss.

It's available at the address http://your_appliance_ip/console

From here you can manage the DataSources, JMS, Log4J, Apache Mod Proxy, JavaMail, Admin Account and any file in your \$JBOSS_HOME folder.



Img 5 J2easy JBoss admin console

3.2.2 The file manager.

The file manager permits to admin the \$JBOSS_HOME folder remotely.

From here you can access the logs, deploy new application, cleanup the system, etc.

3.2.3 Deploying

To deploy a new Enterprise Application move in the deploy folder and upload the application with the "Choose file" form.

If you need to deploy configuration wide libraries you can do it uploading them in the lib folder and restarting the appliance but it's strongly not to recommend.

If the enterprise application is properly packaged you don't need to deploy libraries in the lib folder.

3.2.4 Deploying WebApps and WebServices

The procedure to deploy a web apps or a webService works exactly as stated in the previous section but you must remember to enable the apache mod proxy or it'll not be accessible via port 80.

To do it go to the "Apache Mod Proxy" section of the Admin Console and add an entry for the new web app or WS.

Ex. If your web app is webapp.war provide as alias /webapp and as context ajp://localhost:8009/webapp.

3.3 APPLIANCE ADMINISTRATION

The administration of the appliance is done via the sysconfig menu.

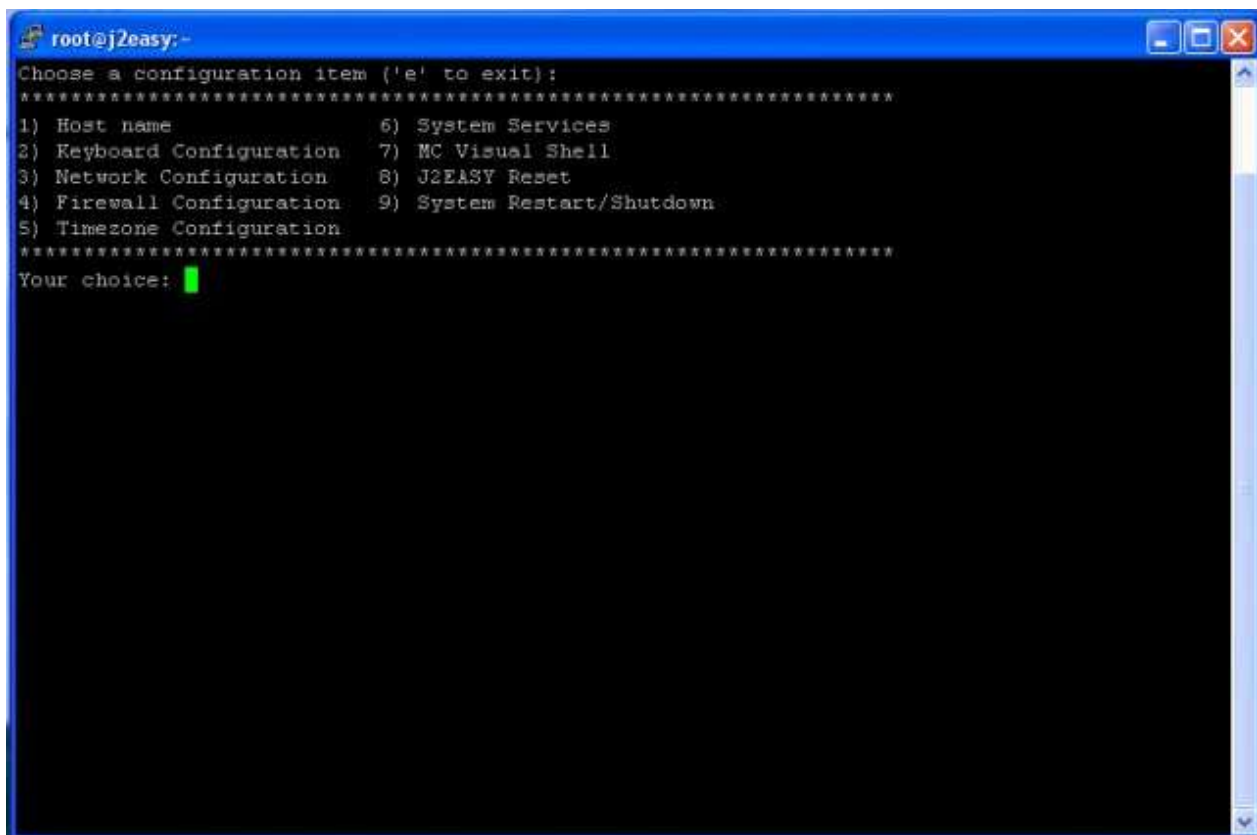
3.3.1 Sysconfig

You can admin your appliance via ssh using sysconfig menu.

If you are a Microsoft user, you can use putty as ssh client.
Download it from: <http://www.chiark.greenend.org.uk/~sgtatham/putty/>

In details the steps involved to access the sysconfig follows:

1. connect via ssh to your_appliance_ip using the account user
2. type "su" to change the user in root
3. type sysconfig to gain access to the sysconfig menu



```
root@j2easy:~  
Choose a configuration item ('e' to exit):  
*****  
1) Host name                6) System Services  
2) Keyboard Configuration   7) MC Visual Shell  
3) Network Configuration    8) J2EASY Reset  
4) Firewall Configuration   9) System Restart/Shutdown  
5) Timezone Configuration  
*****  
Your choice: █
```

Img 6 Sysconfig menu

As shown in the previous image from here you've complete controll over your appliance system.

To access a the configuration tools type the number of the tool you want to use, in details the tools have the following functionalities:

1. Hostname. Changes the hostname, default value is j2easy
2. Keyboard Configuration: Changes the keyboard layout, default value is US
3. Network Configuration: Change the configuration of the network, default value is DHCP
4. Firewall Configuration: Changes the firewall settings, default open ports are 22 (ssh), 80 http
5. Timezone Configuration: Changes the timezone
6. System services: Changes the services to start during the system boot
7. MC Visual Shell: Midnight Commander visual shell. A nice tool to browse the file system and edit files
8. J2easy reset: Choosing this menu you're going to reset the J2easy appliance
9. System restart/shutdown: Choosing this menu you can reboot or shutdown the appliance.